

### REMARKS

Claims 1 – 6 and 9 – 25 are pending in the present Application. Claims 17 – 23 and 25 have been withdrawn from consideration. No Claims have been cancelled, amended, and or added, leaving Claims 1-6 and 9-16 for consideration upon entry of the present Amendment.

No new matter has been introduced. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

#### Statement of Common Ownership

The present U.S. Patent Application No. 10/675,069, and U.S. Patent Publication No. 2005/0070657 to Elkovitch et al. (hereinafter “Elkovitch”), were owned by the General Electric Company (now SABIC Innovative Plastics), at the time the invention of the present application was made. The assignment of Elkovitch at can be found in Reel/Frame number 014568/0246. Information regarding the assignment of the present invention is found in Reel/Frame number 014564/0931.

The present application and U.S. Patent Publication No. 2002/0183438 to Amarasekera et al. (hereinafter “Amarasekera”) were owned by the General Electric Company, at the time the invention of the present application was made.

Amarasekera, Elkovitch, and the present application are all presently commonly assigned to SABIC Innovative Plastics.

#### Claim Rejections Under 35 U.S.C. § 103(c)

Claims 1 –6, 9 – 16 and 24 stand rejected under 35 U.S.C. § 103(c), as allegedly unpatentable over U.S. Patent Publication No. 2002/0183438 to Amarasekera et al. (hereinafter “Amarasekera”) taken with U.S. Patent Publication No. 2005/0070657 to Elkovitch, and U.S. Patent No. 5,591,382 to Nahass et al. (hereinafter “Nahass”). (Office Action (OA) dated 12/17/2007, page 3) Applicants respectfully traverse this rejection.

Claim 1 is directed to a conductive composition comprising an organic polymer, a nanosized conductive filler and/or carbon fibers having an average diameter of greater than or equal to about 1000 nanometers, and graphite in an amount of about 40 to about 90 wt based on the total weight of the composition, wherein the graphite has average particle sizes of about 4 to

about 5,000 micrometers.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Amarasekera is directed to a conductive filler comprising small carbon fibers with carbon powder and/or a fibrous non-conductive filler. (Abstract; see paragraphs [0010] and [0019]). Amarasekera also discloses that the small carbon fibers may be graphitized or partially graphitized vapor grown carbon fibers. (Paragraph [0015])

Applicants also respectfully submit that Amarasekera is unavailable as prior art. 35 U.S.C. § 103(c)(1) provides:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Both the present application and Amarasekera are under obligation of assignment to Sabic Innovative Plastics. Further, as indicated above, the General Electric Company commonly owned both the present application and the application of Amarasekera at the time the present invention was made. For these reasons, Applicants submit that Amarasekera cannot be relied on as prior art for the § 103(a) rejection.

In making the rejection, the Examiner has stated that the nanosized conductive filler of Amarasekera “may actually be graphite”. (OA 12/17/2007, page 4) From the Examiner’s statements, it appears that the Examiner has construed the graphitized or partially graphitized vapor grown carbon fibers of Amarasekera as being equivalent to the claimed graphite.

Applicants respectfully disagree.

First, as described by Amarasekera, the graphitized or partially graphitized VGCF are disclosed as having diameters of 3.5 to 2000 nanometers and possessing tree-ring and fishbone structures. In contrast, Claim 1 of the instant application teaches that the size of the claimed graphite ranges from 3 to 5000 micrometers ( $\mu\text{m}$ ). Therefore, the present claims teach that the required diameter of the graphite in the presently claimed composition, is much greater than the diameter of the graphitized VGCF taught by Amarasekera.

Second, paragraph [0016] of Amarasekera, teaches that the VGCF is used in amounts greater than 0.25 wt%, but less than 30 wt%, based on the total weight of the composition. In contrast, Claim 1 of the instant application teaches that the minimum amount of graphite required for the conductive composition is 40 wt%, with a range of up to 90 wt%.

Third, one of skill in the art, upon reading the specification, would understand that the graphite employed in the conductive compositions of the presently claimed invention is significantly different from the graphitized VGCF described by Amarasekera. Specifically, paragraph [0091], and Claim 6, teach that naturally produced graphite is preferred and that three types of naturally produced graphite may be used, including flake, amorphous graphite and crystal vein. Further, the specification clearly points out that the diameter of the graphite is significantly larger than the graphitized VGCF taught by Amarasekera.

For at least these reasons, Amarasekera does not teach all elements of the claimed invention. Since Amarasekera does not teach all elements of the invention, there would be no motivation to modify the reference.

Elkovitch teaches compositions of thermoplastic and/or thermoset polymers, a single walled nanotube composition and a nanosized conductive filler. (See Abstract) Elkovitch teaches a nanosized conductive filler having at least one dimension less than 1,000 nanometers (paragraph [0097] and further teaches that the conductive filler may be graphite (paragraph [0098])).

However, Applicants respectfully submit that Elkovitch is unavailable as prior art. Elkovitch was filed on September 29, 2003, one day prior to the filing date of the present application (September 30, 2003). Elkovitch was published on March 31, 2005, about 18 months

after the filing date of the present application and is therefore not available under 35 U.S.C. § 102(a), or 102(b). Therefore, Elkovitch would only be available as prior art under § 102(e).

With regard to obligation of assignment, the Examiner stated that in order to overcome the rejection “it is necessary that applicant show that the current application and prior art references were under obligation of assignment to the same assignee at the time the current invention was made.” The Examiner further stated that it is not sufficient that application indicate the present application and prior art references are currently commonly assigned. (OA 12/14/2007, page 5)

As indicated in the “statement of common ownership” provided above, Elkovitch and the present application were under obligation of assignment to the General Electric Company (now SABIC Innovative Plastics) at the time the present invention was made. 35 U.S.C. § 103(c)(1) provides that “subject matter developed by another person which qualifies as prior art under subsection 102(e), (f) or (g) shall not preclude patentability where the subject matter and claimed invention were *inter alia* subject to an obligation of assignment to the same person”. For these reasons, Applicants submit that Elkovitch cannot be relied on as prior art for the § 103(a) rejection.

Even if Elkovitch were to qualify as prior art, Elkovitch does not teach all elements of the presently claimed invention. Specifically, Elkovitch does not teach the use of graphite particles within the range of 3 to about 5,000 micrometers. Further, Elkovitch is silent with regard to the amount of graphite that could be used, therefore Elkovitch does not teach the use of graphite in an amount of about 40 to 90 wt% based on the total weight of the composition, as required by independent claim 1. For at least this reason, the combination of Amarasekera and Elkovitch does not teach or suggest each and every element of the invention. Further, since Elkovitch does not make up for the deficiencies of Amarasekera, there would be no motivation to combine the references.

Nahass discloses a polymeric composition having improved toughness and conductivity comprising carbon fibrils, at least a portion of which are in the form of aggregates. (Abstract) The carbon fibrils disclosed by Nahass are identical to the vapor grown carbon fibers of Amerasekera. However, Nahass does not teach or suggest the use of graphite in the polymeric

composition, neither does it teach or suggest the size of the graphite particles or the amount of graphite that might be added.

Thus, while Nahass does teach the use of carbon fibrils that are similar in nature to VGCF, it does not teach or suggest using graphite in an amount of about 40 to 90 t% based on the total weight of the composition where the graphite has average particle size of about 3 to 5,000 micrometers. For at least this reason, the combination of Amarasekera, Elkovitch, and Nahass does not teach or suggest each and every element of the invention. Further, since Nahass does not make up for the deficiencies of Amarasekera, or Elkovitch, there would be no motivation to combine the references.

In summary, since Elkovitch does not qualify as prior art, and since Nahass does not teach graphite in the form presently claimed, Nahass does not make up for the deficiencies of Amarasekera, and thus Applicants believe that Examiner has not made a case of obviousness over Amarasekera taken with Elkovitch and Nahass. Applicants therefore respectfully request a withdrawal of the obviousness rejection and an allowance of the claims.

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It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-1131.

Respectfully submitted,

CANTOR COLBURN LLP

By /David E. Rodrigues/  
David E. Rodrigues  
Registration No. 50,604

Date: March 6, 2008  
CANTOR COLBURN LLP  
20 Church Street  
22<sup>nd</sup> Floor  
Hartford, CT 06103-3207  
Telephone (860) 286-2929  
Facsimile (860) 286-0115  
Customer No.: 23413